Examiner is of the opinion that the same are patentably distinct groups.

The undersigned is at a complete loss as to how the present Examiner could deem there to be three patentably distinct inventions possible in the fourth office action. The same Examiner has issued three actions on the merits and now, all of a sudden, decides that the claims cannot be examined in the same application. Applicants' elect with a vigorous traverse, the election of group I, namely, claims 17 to 28 and 41 to 47 drawn to the polypeptide and the pharmaceutical compositions containing the same although, it is deemed that there is but a single invention present.

The heading before paragraph 1 was indicated as being Election/Restriction. However, the Examiner did not set forth the election of species and therefore, it is deemed that only a restriction was being required and that the heading was an error.

In addition, the claims have been amended to correct minor errors in the same and does not raise any new issues.

Respectfully submitted,
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CAM:ds
Enclosures

21. The pharmaceutical composition of claim 20 wherein the cartilage and/or bone diseases are osteoporosis.

22. The pharmaceutical composition of claim 20 wherein the cartilage and/or bone diseases are osteoarthritis or arthrosteitis.

23. The pharmaceutical composition of claim 20 wherein the cartilage and/or bone diseases are bone fracture and/or bone defects or lesions or cartilage defect/lesions. s or

24. The pharmaceutical composition of claim 20 wherein the cartilage and/or bone diseases are articular cartilage lesion.

25. The pharmaceutical composition of claim ~~14~~ 24, wherein the articular cartilage lesion is an articular meniscus lesion.

26. The pharmaceutical composition of claim 20 for application in cases where bone grafting or cartilage grafting or induction of new cartilage or bone is advantageous.

27. The pharmaceutical composition of claim 20 wherein the cartilage and/or bone diseases are radicular or alveolar defects.

28. The pharmaceutical composition of claim 20 wherein the cartilage and/or bone diseases are congenital.

29. A plasmid encoding a protein of claim 17 wherein the plasmid contains a DNA encoding a polypeptide having the amino acid sequence shown in SEQ ID No: 1 with an additional methionine at the N-terminus.

30. A process for the preparation of the isolated protein of claim 18 comprising a) constructing a plasmid encoding a protein consisting of the 119 amino acids shown in SEQ ID No: 1 with an additional methionine at the N-terminus/ ~~without residual proteins~~, introducing the plasmid into E.coli by

transformation, culturing the E.coli to obtain inclusion bodies solubilizing the inclusion bodies, purifying the protein from the solubilized solution, refolding the protein into a homodimer protein and purifying the homodimer protein.

31. The process of claim 30 wherein the plasmid comprises the sequence of SEQ ID No: 4 with an additional ATG start codon at its 5' terminus.

32. The process of claim 30 wherein the sequence around the codon for methionine at the N-terminus has an increased AT content.

33. The process of claim 31 wherein the 5'terminus of the nucleotide sequence of SEQ ID No: 4 is substituted from position 1 to position 21 by the DNA sequence consisting of CCA CTA GCA ACT CGT CAG GGC.

34. A method of treating cartilage and/or bone diseases in warm-blooded animals comprising administering to warm-blooded animals in need thereof an amount of the homodimer protein of claim 18 effective to treat cartilage and/or bone diseases.

35. The method of claim 34 wherein said cartilage and//or bone disease is osteoporosis.

36. The method of claim 34 wherein said cartilage and/or bone disease is osteoarthritis or arthrosteitis.

37. The method of claim 34 wherein said cartilage and/or bone disease is bone fracture or bone defect or cartilage defect.

38. The method of claim 34 wherein said cartilage and/or bone disease is articular cartilage lesion.

39. The method of claim 34 wherein said cartilage and/or bone

diseases are radicular or alveolar defects.

40. The method of claim 34 wherein said cartilage and/or bone diseases are congenital.

41. A pharmaceutical composition of claim 19 for systemic or local administration.

42. A pharmaceutical composition of claim 41 as an injectable preparation.

43. A pharmaceutical composition of claim 19 in the form of an injectable powder.

44. A pharmaceutical composition of claim 20 for coating onto the surface of cartilage, bone or tooth.

45. A pharmaceutical composition of claim 20 for cartilage or bone grafting using natural or artificial bone.

46. A pharmaceutical composition of claim 45 wherein artificial bone means metal, ceramics, glass, collagen and/or hydroxyapatite.

47. The pharmaceutical composition according to claim ~~26~~ 28, wherein the disease is chondrodysplasia, chondrohypoplasia, achondrogenesis, palatoschisis and osteodysplasia.

48. The method of claim ~~38~~ 40 wherein said cartilage and/or bone diseases are chondrodysplasia, chondrohypoplasia, achondrogenesis, palatoschisis and osteodysplasia.--

REMARKS

Reconsideration of this application is requested in view of